



PATENT APPLICATION

NASA CASE NO. MSC-23518-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Sean O'Keefe) Group Art
First Named Inventor : Karen M. Taminger) Unit: 1732
Serial No.: : 10/637,086) Examiner:
Filed : 08/01/2003) Conf #: 9092
For : Solid Freeform Fabrication Apparatus)
And Method)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Certificate of Mailing
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Tanya B. Jefferson

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Dear Sir:

In accordance with the applicant's duty of candor and good faith, references are listed on form PTO-1449 enclosed herewith for consideration by the examiner in connection with the examination of this application.

A fee of \$180 is due pursuant to the filing of this Information Disclosure Statement. The Commissioner is hereby authorized to charge this fee and any other fees necessary to accomplish the filing of this Information Disclosure Statement to Deposit Account No. 14-0116.

12/23/2003 RMEBRAHT 00000065 140116 10637086
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Respectfully submitted,
Theodore U. Ro 12/18/03
Theodore U. Ro
Attorney for Applicant
Registration No. 52,168

NASA/Johnson Space Center
HA/Office of Patent Counsel
Houston, Texas 77058
Telephone: 281-244-7148, Datafax: 281-244-8452



PTO/SB/08A (04-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	
Filing Date	08/01/2003
First Named Inventor	Karen M. Taminger
Art Unit	
Examiner Name	
Attorney Docket Number	MSC-23518-1

Sheet 1 of 2**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 6316153	11/12/2001	Goodman et al.	
		US- US2003/0075836	04/24/2003	Fong	
		US- 6401001	06/04/2002	Jang et al.	
		US- 6376148	04/23/2002	Liu et al.	
		US- 5786023	07/28/1998	Maxwell et al.	
		US- 2003/0067098	04/10/2003	Newell et al.	
		US- 2002/0149137	10/17/2002	Jang et al.	
		US- 2002/0195747	12/26/2002	Hull et al.	
		US- 2003/0063138	04/03/2003	Varnon et al.	
		US- 5622216	04/22/1997	Brown	
		US- 5697043	12/09/1997	Baskaran et al.	
		US- 5738817	04/14/1998	Danforth et al.	
		US- 5745834	04/28/1998	Bampton et al.	
		US- 5775402	07/07/1998	Sachs et al.	
		US- 5786562	07/28/1998	Larson	
		US- 5787965	08/04/1998	Sterett et al.	
		US- 5849238	12/15/1998	Schmidt et al.	
		US- 5893404	04/13/1999	Mendez et al.	
		US- 6149072	11/21/2000	Tseng	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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PTO/SB/08A (04-03)

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Art Unit	
Examiner Name	
Attorney Docket Number	MSC-23518-1

Sheet **2** of **2****U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 6180049	01/30/2001	Jang et al.	
		US- 6214279	04/10/2001	Yang et al.	
		US- 6228437	05/08/2001	Schmidt	
		US- 6251340	06/26/2001	Tseng	
		US- 6268584	07/31/2001	Keicher et al.	
		US- 6306467	10/23/2001	White et al.	
		US- 3971860	07/27/1976	Broers et al.	
		US- 6405095	06/11/2002	Jang et al.	
		US- 6409902	06/25/2002	Yang et al.	
		US- 6471800	10/29/2002	Jang et al.	
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FOREIGN PATENT DOCUMENTS

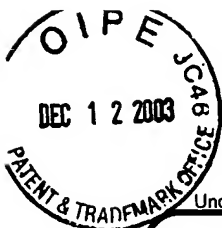
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

Examiner
SignatureDate
Considered

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PTO/SB/17 (10-03)

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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 180.00

Complete if Known

Application Number	10/637,086
Filing Date	08/01/2003
First Named Inventor	Karen M. Taminger
Examiner Name	
Art Unit	1732
Attorney Docket No.	MSC-23518-1

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit
Account
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Deposit
Account
Name

14-0116

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The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☒ Charge fee(s) indicated below, except for the filing fee
to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					(\$)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims		-20** =		X		=	
Independent Claims		-3** =		X		=	
Multiple Dependent						=	

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	86	2201	43	Independent claims in excess of 3	
1203	290	2203	145	Multiple dependent claim, if not paid	
1204	86	2204	43	** Reissue independent claims over original patent	
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)					(\$)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	180.00
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 180.00

SUBMITTED BY

(Complete if applicable)

Name (Print/Type)	Theodore U. Ro	Registration No. (Attorney/Agent)	52,168	Telephone	281-244-7148
Signature	<i>Theodore U. Ro</i>	Date	12/8/03		

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